



eco-INSTITUT Germany GmbH

Laborprüfung
Laboratory testing
Zertifizierung
Certification



EVALUATION

for eco-INSTITUT-Label Certification



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Report N° 56822-A004-eIL-G

Test objective:	Certification according to eco-INSTITUT-Label-criteria
Scope of certification:	Powerpanel H20
Certification holder:	James Hardie Europe GmbH Bennigsen-Platz 1 DE - 40474 Düsseldorf
Test period:	21/10/2021 - 14/12/2021
Date of report:	25/01/2022
Number of pages of report:	6
Certification body:	eco-INSTITUT Germany GmbH, Köln
Test objective fulfilled:	✓
Note:	The report immediately loses its validity upon changes to the composition or the production method of the certified product. The publication of extracts of the report requires the prior written approval of eco-INSTITUT Germany GmbH. More information at www.eco-institut.de/en/advertising

Summary evaluation

The product **Powerpanel H2O** was submitted to an ecological product examination on behalf of **James Hardie Europe GmbH** for the acquisition of the eco-INSTITUT-Label.

The requirements specified in the certification scheme and in the test criteria are met.

As a result of the successful ecological product examination the

eco-INSTITUT-Label



is awarded for the product:
Powerpanel H2O
for a period of two years.

Certification number

ID 0609 - 13701 - 011

Test report Number

56822-004-L


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Validity

07/2023

After expiration of two years it is possible to acquire the eco-INSTITUT-Label for another two year period. For this a pre-certification review and a laboratory test will be accomplished according to the latest eco-INSTITUT-Label test criteria.

Cologne, 25/01/2022



Marc-Anton Dobaj, M.Sc. Crystalline Materials
(Project Manager, responsible for the evaluation)

Cologne, 25/01/2022



Nora Rasch
(Project Manager, responsible for the certification)



Expert evaluation

The product **Powerpanel H2O** was submitted to laboratory tests on behalf of **James Hardie Europe GmbH** for an ecological product examination according to the eco-INSTITUT-Label test criteria for mineral building products (status: May 2021).

The basic requirements specified in the test criteria are met. The special requirements specified in the test criteria are met.

Representatively the materials listed in the test report 56822-A004-L dated 15/12/2021 under the overview of samples were examined in the laboratory.

The results documented in the test report were evaluated as follows.¹

Internal sample number: | 56822-A004

Test parameters	Result	Limit Value	Within limits [yes/no]
Emission analysis			
Measurement time: 3 days after test chamber loading			
TVOC (total volatile organic compounds including SVOC with LCI)	77 µg/m ³	≤ 3000 µg/m ³	yes
CMR 1: VOC (incl. WVOC and SVOC) with the following categorisations: Regulation (EC) No. 1272/2008: Category Carc. 1A and 1B, Muta. 1A and 1B, Repr. 1A and 1B; TRGS 905: K1A, K1B, M1A, M1B, R1A, R1B; IARC: Group 1 and 2A; DFG (MAK list): Categories III1, III2 (Sum)	< 1 µg/m ³	≤ 1 µg/m ³	yes
Measurement time: 7 days after test chamber loading			
CMR 1: VOC (incl. WVOC and SVOC) with the following categorisations: Regulation (EC) No. 1272/2008: Category Carc. 1A and 1B, Muta. 1A and 1B, Repr. 1A and 1B; TRGS 905: K1A, K1B, M1A, M1B, R1A, R1B; IARC: Group 1 and 2A; DFG (MAK list): Categories III1, III2 (Sum)	< 1 µg/m ³	≤ 1 µg/m ³	yes
CMR 2: VOC (incl. WVOC and SVOC) with the following categorisations: Regulation (EC) No. 1272/2008: Category Carc. 2, Muta. 2, Repr. 2; TRGS 905: K2, M2, R2; IARC: Group 2B; DFG (MAK list): Category III3 (Sum)	7 µg/m ³	≤ 25 µg/m ³	yes

¹ If a measurement result that slightly exceeds the specification is assessed as “not fulfilled”, this is based on the agreement of the “shared risk of measurement uncertainty (shared risk approach)”. According to this, the probability that the statement is correct is ≥ 50%. Similarly, a result slightly below the specification value also only has a probability of ≥ 50 % of being compliant. I.e., the risk of making a false negative statement regarding the fulfilment of the specification is just as high as the risk of making a false positive statement (more information at https://www.eco-institut.de/en/2019/07/measurement_uncertainty/).

Remark: It is not permitted to publish extracts of this report and the comments on the first page of this report apply.

Test parameters	Result	Limit Value	Within limits [yes/no]
Emission analysis			
TVOC (total volatile organic compounds including SVOC with LCI)	61 µg/m ³	≤ 150 µg/m ³	yes
TSVOC (total semi-volatile organic compounds)	< 1 µg/m ³	≤ 50 µg/m ³	yes
VOC (Sum) without LCI	9 µg/m ³	≤ 50 µg/m ³	yes
Sensitising compounds with the following categorisations: DFG (MAK list): Category IV; Regulation (EC) No. 1272/2008: skin sensitising, respiratory sensitising; TRGS 907 (Sum)	2 µg/m ³	≤ 50 µg/m ³	yes
Bicyclic terpenes (Sum)	< 1 µg/m ³	≤ 100 µg/m ³	yes
C9 - C14 Alkanes / Isoalkanes (Sum)	39 µg/m ³	≤ 100 µg/m ³	yes
C4 - C11 Aldehydes, acyclic, aliphatic (Sum)	< 1 µg/m ³	≤ 50 µg/m ³	yes
C6 - C15 Alkyl benzenes (Sum)	< 1 µg/m ³	≤ 50 µg/m ³	yes
Cresols (Sum)	< 1 µg/m ³	≤ 3 µg/m ³	yes
Xylene (Sum)	< 1 µg/m ³	≤ 50 µg/m ³	yes
VOC (individual substances):			
Formaldehyde	2 µg/m ³	≤ 12 µg/m ³	yes
Acetaldehyde	4 µg/m ³	≤ 12 µg/m ³	yes
Ethyl acetate (VVOC)	< 1 µg/m ³	≤ 300 µg/m ³	yes
Phenol	< 1 µg/m ³	≤ 10 µg/m ³	yes
Methylisothiazolinone (MIT)	< 1 µg/m ³	≤ 1 µg/m ³	yes
Octylisothiazolinone (OIT)	< 1 µg/m ³	≤ 1 µg/m ³	yes
Benzaldehyde	< 1 µg/m ³	≤ 10 µg/m ³	yes
2-Ethyl-1-hexanol	9 µg/m ³	≤ 50 µg/m ³	yes
Ethylen glycol monobutylether	< 1 µg/m ³	≤ 50 µg/m ³	yes
2-Hexoxyethanol	< 1 µg/m ³	≤ 50 µg/m ³	yes
Benzothiazole ¹⁾	< 1 µg/m ³	≤ 7,5 µg/m ³	yes
2-Butoxyethyl acetate	< 1 µg/m ³	≤ 100 µg/m ³	yes
2-Phenoxyethanol	< 1 µg/m ³	≤ 15 µg/m ³	yes
Propylene glycol (Propane-1,2-diol)	< 1 µg/m ³	≤ 30 µg/m ³	yes
Glycol ethers with insufficient data* (Limit value per single substance):	< 0.0025 ppm	< 0.0025 ppm	yes
R-Value	0.07	≤ 0.5	yes

1) preliminary, exceeding the limit does not lead to devaluation at present

* cf. Announcement of the Ad-hoc Working Group on Indoor Guidelines of the Indoor Air Hygiene Committee and of the Supreme State Health Authorities: Richtwerte für Glykolether und Glykolester in der Innenraumluft, Bundesgesundheitsblatt, February 2013, Volume 56, Issue 2, pp 286-320.

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Test parameter	Internal sample number	Result	Limit value	Within limits [yes/no]
Content analyses				
Phthalates (Softeners, sum) DMP, DEP, DPEP, DBP, BBP, DEHP, DNOP, DIBP, BMEP, DHP, DPP, DIPP, PIPP, DINP, DIDP, DIHP, DHNUP, DEHT	56822-A004	< q.l.	≤ 100 mg/kg	yes
Terephthalate DEHT	56822-A004	< q.l.	≤ 100 mg/kg	yes
Diisononyl cyclohexane-1,2-dicarboxylate DINCH	56822-A004	< q.l.	≤ 100 mg/kg	yes
AOX (Absorbable organic halogenated compounds)	56822-A004	< q.l.	≤ 1.0 mg/kg	yes
EOX (Extractable organic halogenated compounds)	56822-A004	< q.l.	≤ 2 mg/kg	yes
Odour	56822-A004	Grade 2.1	≤ Grade 3 (3 days after test chamber loading)	yes

< q.l. = Value below quantification limit

Cologne, 25/01/2022

Marc-Anton Dobaj, M.Sc. Crystalline Materials
(Project Manager)

Attachment:

Test Report N° 56822-A004-L dated 15/12/2021